



**Australian
Broadcasting
Authority**

RADIO LICENCE AREA PLAN

Cairns
(Radio)

October 1997

LICENCE AREA PLAN - CAIRNS

DETERMINATION

The Australian Broadcasting Authority hereby makes this plan for radio broadcasting services in the Cairns area of Northern Queensland, under section 26(1) of the *Broadcasting Services Act 1992*.

Ten national services, four commercial services and two open narrowcasting radio broadcasting services are to be available in the Cairns area described at Attachment 1.1 to this determination with the use of the broadcasting services bands. The characteristics, including technical specifications, of the services that are to be available in the area described at Attachment 1.1 are set out in the Schedule and Attachments 1.2 - 1.21 to this Determination.

Two community services are to be available in the Cairns area described at Attachment 2.1 to this determination with the use of the broadcasting services bands. The characteristics, including technical specifications, of the services that are to be available in the area described at Attachment 2.1 are set out in the Schedule and Attachments 2.2 - 2.3 to this Determination.

(Determined by the Australian Broadcasting Authority on 18 October 1997)

SCHEDULE

The Schedule sets out:

- the category of each of the services that are to be available in that area (column one),
- the service licence number which has been allocated to the service, if appropriate (column two); N/A = Not Applicable, as the *Broadcasting Services Act 1992* only requires service licences for Commercial and Community services.
- the number of transmitters required to transmit the service,
- the transmitter specification number which has been allocated to each transmitter (column three),
- the identifying number of the attachment where the technical specifications for each transmitter are described (column four). (Each set of technical specifications referred to in the Schedules is an attachment to this determination).
- the general area served by each transmitter (column five).

Licence Area Plan : Cairns - Radio

Licence Area : Cairns RA1

Category Of Service	Service Licence No	Transmitter Specification No	Technical Specifications	General Area Served by Transmitter
Commercial	SL4170	TS10007435	See Attachment 1.2	Cairns
Commercial	SL4170	TS10007448	See Attachment 1.3	Gordonvale
Commercial	SL5742	TS10007433	See Attachment 1.4	Cairns (Mt Yarrabah)
Commercial	SL5742	TS10007487	See Attachment 1.5	Mossman
Commercial	SL1150014	TS10007328	See Attachment 1.6	Cairns (Mt Yarrabah)
Commercial	SL1150014	TS10007488	See Attachment 1.7	Mossman
Commercial	SL1150044	TS10007855	See Attachment 1.8	Cairns (Mt Yarrabah)
Commercial	SL1150044	TS10007856	See Attachment 1.9	Mossman
National	N/A	TS10007417	See Attachment 1.10	Cairns
National	N/A	TS10007418	See Attachment 1.11	Cairns
National	N/A	TS10007419	See Attachment 1.12	Cairns
National	N/A	TS10007421	See Attachment 1.13	Cairns
National	N/A	TS10007422	See Attachment 1.14	Cairns North
National	N/A	TS10007423	See Attachment 1.15	Cairns North
National	N/A	TS10007430	See Attachment 1.16	Cairns North
National	N/A	TS10007586	See Attachment 1.17	Cairns North
National	N/A	TS10007432	See Attachment 1.18	Mossman
National	N/A	TS10007457	See Attachment 1.19	Mossman
Open Narrowcasting	N/A	TS10007456	See Attachment 1.20	Cairns (Mt Yarrabah)
Open Narrowcasting	N/A	TS10007489	See Attachment 1.21	Mossman

Licence Area Plan : Cairns - Radio

Licence Area : Cairns RA2

Category Of Service	Service Licence No	Transmitter Specification No	Technical Specifications	General Area Served by Transmitter
Community	SL1883	TS10007329	See Attachment 2.2	Cairns (Mt Yarrabah)
Community	SL1150013	TS10007451	See Attachment 2.3	Cairns (Mt Yarrabah)

LICENCE AREA FOR CAIRNS RA1 COMMUNITY RADIO

Total Persons

Cairns (C)	49367	CD 010902	347
Craigie (L)	2037	CD 010908	670
Kuranda (L)	617	CD 012002	279
Mossman	1772	CD 012003	0
Mulgrave (s) - Pt A	48335	CD 012004	142
Newell (L)	373	CD 012005	220
Port Douglas	3650	CD 012006	1037
Wonga Beach (L)	365	CD 012301	125
Yarrabah	1833	CD 012302	359
CD 010803	1039	CD 030302	428
CD 010804	668	CD 030303	372
CD 010805	507	CD 030305	67
CD 010807	141	CD 030311	1157
CD 010808	0	CD 030312	1010
CD 010901	443	Total Persons	116 563

Note:

Standard terminology used by the Australian Bureau of Statistics

C	=	City
CD	=	Collection District
RC	=	Rural City
S	=	Shire
T	=	Town
L	=	Locality

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Cairns (QLD)

Service Licence Number : SL4170

TECHNICAL SPECIFICATION - AM Radio

Specification Number : TS10007435

Transmitter Site :-

Nominal location : Bessie Point 5km NE of Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 374197 8130703

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode MF-AM

Carrier Frequency : 846 kHz

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Elevation	Maximum CMF
0°T	0	630 V
10°T	0	470 V
20°T	0	310 V
30°T	0	175 V
40°T	0	165 V
50°T	0	265 V
60°T	0	365 V
70°T	0	445 V
80°T	0	500 V
90°T	0	520 V
100°T	0	510 V
110°T	0	480 V
120°T	0	415 V
130°T	0	325 V
140°T	0	220 V

150°T	0	150 V
160°T	0	220 V
170°T	0	375 V
180°T	0	535 V
190°T	0	690 V
200°T	0	820 V
210°T	0	915 V
220°T	0	980 V
230°T - 320°T	0	1.035 kV
330°T	0	960 V
340°T	0	880 V
350°T	0	770 V
355°T	0	705 V

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Gordonvale (QLD)

Service Licence Number : SL4170

TECHNICAL SPECIFICATION - AM Radio

Specification Number : TS10007448

Transmitter Site :-

Nominal location : Vohland Rd Gordonvale

Australian Map Grid :	Zone	Easting	Northing
Reference	55	378201	8105000

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode MF-AM

Carrier Frequency : 954 kHz

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Elevation	Maximum CMF
At all angles of azimuth	0°	180 V

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : SL5742

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007433

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 103.5 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Mossman (QLD)

Service Licence Number : SL5742

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007487

Transmitter Site :-

Nominal location : Radio Terminal Newell Beach

Australian Map Grid : Zone Easting Northing
Reference 55 327567 8182221

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 91.7 MHz

Polarisation Mixed

Maximum antenna height 40 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	1 kW

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : SL1150014

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007328

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 102.7 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Mossman (QLD)

Service Licence Number : SL1150014

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007488

Transmitter Site :-

Nominal location : Radio Terminal Newell Beach

Australian Map Grid : Zone Easting Northing
Reference 55 327567 8182221

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 92.5 MHz

Polarisation Mixed

Maximum antenna height 40 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	1 kW

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : SL1150044

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007855

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 99.5 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW

LICENCE AREA PLAN : Cairns

Category : Commercial

General Area Served : Mossman (QLD)

Service Licence Number : SL1150044

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007856

Transmitter Site :-

Nominal location : Radio Terminal Newell Beach

Australian Map Grid : Zone Easting Northing
Reference 55 327567 8182221

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 88.5 MHz

Polarisation Mixed

Maximum antenna height 40 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	1 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007417

Transmitter Site :-

Nominal location : Mt Bellenden-Ker

Australian Map Grid : Zone Easting Northing
Reference 55 378034 8090678

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 106.7 MHz

Polarisation Mixed

Maximum antenna height 50 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	100 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007418

Transmitter Site :-

Nominal location : Mt Bellenden-Ker

Australian Map Grid : Zone Easting Northing
Reference 55 378034 8090678

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 105.1 MHz

Polarisation Mixed

Maximum antenna height 50 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	100 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007419

Transmitter Site :-

Nominal location : Mt Bellenden-Ker

Australian Map Grid : Zone Easting Northing
Reference 55 378034 8090678

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 105.9 MHz

Polarisation Mixed

Maximum antenna height 50 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	100 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007421

Transmitter Site :-

Nominal location : Mt Bellenden-Ker

Australian Map Grid : Zone Easting Northing
Reference 55 378034 8090678

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 107.5 MHz

Polarisation Mixed

Maximum antenna height 50 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	100 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns North (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007422

Transmitter Site :-

Nominal location : Buchan Point Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 357300 8148900

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 95.5 MHz

Polarisation Mixed

Maximum antenna height 45 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
135°T - 200°T	10 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns North (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007423

Transmitter Site :-

Nominal location : Buchan Point Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 357300 8148900

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 93.9 MHz

Polarisation Mixed

Maximum antenna height 45 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
135°T - 200°T	10 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns North (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007430

Transmitter Site :-

Nominal location : Buchan Point Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 357300 8148900

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 97.1 MHz

Polarisation Mixed

Maximum antenna height 45 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
135°T - 200°T	10 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Cairns North (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007586

Transmitter Site :-

Nominal location : Buchan Point Cairns

Australian Map Grid :	Zone	Easting	Northing
Reference	55	357300	8148900

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 94.7 MHz

Polarisation Mixed

Maximum antenna height 45 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
135°T - 200°T	10 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Mossman (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007432

Transmitter Site :-

Nominal location : Radio Terminal Newell Beach

Australian Map Grid : Zone Easting Northing
Reference 55 327567 8182221

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 90.1 MHz

Polarisation Mixed

Maximum antenna height 40 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	1 kW

LICENCE AREA PLAN : Cairns

Category : National

General Area Served : Mossman (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - AM Radio

Specification Number : TS10007457

Transmitter Site :-

Nominal location : Mossman

Australian Map Grid : Zone Easting Northing
Reference 55 327800 8184300

Site Tolerance :

Emission :-

Frequency Band & Mode MF-AM

Carrier Frequency : 639 kHz

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Elevation	Maximum CMF
At all angles of azimuth	0°	305 V

LICENCE AREA PLAN : Cairns

Category : Open Narrowcasting

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007456

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 89.1 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW

Special Conditions :-

The 'coverage radius' of this transmission is 25 kilometres measured from a point with the following AMG co-ordinates: Zone 55; Easting 376600; Northing 8130400. This point is the same as the nominal transmitter location.

LICENCE AREA PLAN : Cairns

Category : Open Narrowcasting

General Area Served : Mossman (QLD)

Service Licence Number : Not applicable

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007489

Transmitter Site :-

Nominal location : Radio Terminal Newell Beach

Australian Map Grid :	Zone	Easting	Northing
Reference	55	327567	8182221

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 90.9 MHz

Polarisation Mixed

Maximum antenna height 40 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
At all angles of azimuth	1 kW

Special Conditions :-

The 'coverage radius' of this transmission is 9 kilometres measured from a point with the following AMG co-ordinates: Zone 55; Easting 327567; Northing 8182221. This point is the same as the nominal transmitter location.

LICENCE AREA FOR CAIRNS RA2 COMMUNITY RADIO

Total Persons

Cairns (C)	49367	CD 011905	499
Caravonica	1605	CD 011906	1325
Clifton Beach	3720	CD 011907	350
Edmonton_Hambledon	3248	CD 011908	543
Holloways Beach	2460	CD 011909	770
Kewarra Beach	1186	CD 012101	920
Machans Beach	1058	CD 012102	1037
Smithfield Heights	1831	CD 012103	778
Trinity Beach	4439	CD 012104	946
White Rock	3546	CD 012105	56
Yorkeys Knob	2379	CD 012107	619
CD 011609	596	CD 012108	893
CD 011701	314	CD 012109	856
CD 011804	121	CD 012110	847
CD 011811	102	CD 012112	852
CD 011901	615	CD 012117	756
CD 011902	326	CD 012119	901
CD 011903	881	CD 012204	324
CD 011904	671	Total Persons	91737

Note:

Standard terminology used by the Australian Bureau of Statistics

C	=	City
CD	=	Collection District
RC	=	Rural City
S	=	Shire
T	=	Town

LICENCE AREA PLAN : Cairns

Category : Community

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : SL1883

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007329

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 104.3 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW

LICENCE AREA PLAN : Cairns

Category : Community

General Area Served : Cairns (Mt Yarrabah) (QLD)

Service Licence Number : SL1150013

TECHNICAL SPECIFICATION - FM Radio

Specification Number : TS10007451

Transmitter Site :-

Nominal location : Mt Yarrabah Cairns

Australian Map Grid : Zone Easting Northing
Reference 55 376600 8130400

Site Tolerance : Refer to Technical Planning Guidelines

Emission :-

Frequency Band & Mode VHF-FM

Carrier Frequency : 98.7 MHz

Polarisation Mixed

Maximum antenna height 10 m

Output Radiation Pattern :-

Bearing or Sector (Clockwise direction)	Maximum ERP
170°T - 230°T	4 kW
230°T - 260°T	5 kW
260°T - 320°T	10 kW